AcerRouter 101/201

User's Manual

The Federal Communications Commission Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the following measures:

-Reorient or relocate the receiving antenna.

-Increase the separation between the equipment and receiver.

-Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

-Consult the dealer or an experienced radio/TV technician for help.

You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment

This device complies with part 15 the FCC Rules.

Operation is subject to the following two conditions:

(1)This device may not cause harmful interference, and

(2)This device must accept any interference received, including interference that may cause undesired operation.

Table of Contents

Chapter 1 Introduction

Congratulations on your purchase of AcerRouter 101/201. This series includes powerful yet simple communication devices for connecting local area network (LAN) to the Internet. For those who want to surf on the Internet with limited cost, AcerRouter 101/201 products undoubtedly provide the most convenient and economical solution.

1.1 ABOUT THIS MANUAL

The User' s Manual describes how to set up the connection from LAN to the Internet using AcerRouter 101/201. This manual assumes that you are familiar with the basic elements of a computer and are interested in detailed or advanced information on the AcerRouter 101/201. **All instructions and examples in this manual are given for the AcerRouter 101, but also apply to the AcerRouter 201 product unless specifically noted.** It is organized as follows:

Chapter	Content
Introduction	Describes AcerRouter 101/201' s features and main applications.
Before you start	Describes the information and environment needed to configure the AcerRouter 101/201.
Quick Installation	Describes how to install AcerRouter 101/201 quickly for ordinary applications.
Advanced Configuration	Describes all configuration options for the AcerRouter 101/201, including configuring the modems and ISP accounts. This chapter also contains a command reference section for procedures such as resetting the server, setting back to defaults, and changing the server password.
Troubleshooting	Lists problems and solutions one may encounter when using the AcerRouter 101/201.
Appendix A Specifications	Lists AcerRouter 101/201' s technical specifications as a quick reference.
Appendix B Glossary	Explains words and phrases in this manual.

1.2 About AcerRouter 101/201

AcerRouter 101/201 provides the most Internet access to multiple users by sharing one/two dial-up accounts. The outstanding feature of AcerRouter 101 is the two-serial-port (AcerRouter 201 with one built-in modem and one serial-port) design as primary and secondary on-demand or dial-in ports. Modem2 port will be initiated by the system to increase the bandwidth for traffic congestion relief. Modem2 port will disconnect automatically to save cost when the demand for service decreases. If there is no request for accessing the Internet after a period of time, the system will hang up the connection automatically. Simple configuration gets your AcerRouter 101/201 up and running in minutes.

With all these advance technologies, AcerRouter 101/201 provide a cost effective solution for your networking need.

1.3 Features and Benefits

- Support 28.8/33.6/56K modems, ISDN TAs, and leased-line connections

- Support up to two modem connections simultaneously to boost Internet access bandwidth

- Support Dial-On-Demand and auto-disconnect function to save Internet access cost

- Support PPP/PAP/CHAP authentication protocol for dial-up identification

- Support PPP dial-in connection by using standard dial-up program

- Support DHCP/fixed IP configuration for host IP address assignment

- Easy setup through web browser or Telnet on any operating system that supports TCP/IP

- Compatible with all popular Internet applications

- Firewall to protect internal hosts from outside intruders

- Network connection through the built-in 10BASE-T or 100BASE-TX Ethernet

1.4 Applications

There are several applications for AcerRouter 101/201, such as:

- **Sharing IP Address**

    The AcerRouter 101/201 provides the most Internet utilization to multiple users by sharing network environment. With only one ISP account, multiple users on your network can have access to Internet simultaneously.

- **Internet Access**

    The series supports one or two modem Internet accesses. Users can

off the line automatically.

- **Remote Access**

  The Modem 2 port of AcerRouter 101/201 can support dial-in function for remote access. Remote users can dial-in and access interior resources through modem connection. Optional callback function is also provided for the sake of security.

- **Virtual Server**

  If you have a fixed IP address, you can setup a virtual host environment. Internet users can access the target host to get the information by using Virtual Host function provided by the unit.

- **Security**

  AcerRouter 101/201 supports firewall security that can deny Internet users from internal resources. It also can filter internal Internet requests that the administrator does not wish to serve.

Chapter 2 Before You Start

To operate this product, you must have:

- A 80486 or greater processor computer equipped with a 10Base-T or 10/100Base-T Ethernet card
- 16-bit, small-font monitor settings or above are suggested
- TCP/IP network protocol for each PC
- At least one computer for configuration
- UTP network cable with RJ-45 connector
- Microsoft Internet Explorer 4.0 or later, or Netscape Communicator 4.0 or later browser¡ For Web configuration¡ ^
- At least one modem or ISDN terminal adapter
- A dedicated phone line or ISDN line

Please verify whether your computer is installed and configured with TCP/IP properly.

2.1 Package Contents

In this package, you should find:

	AcerRouter 101	AcerRouter 201
Router	1	1
Power Adapter	1(AC9V,1A)	1(AC9V,1A)
User's Manual	1	1
RS-232 Configuration Cable (shielded)	1	1
RS-232 Modem Cable (shielded)	2	1
RJ-11 Phone Cable	0	1

2.2 Hardware Description

2.2.1 AcerRouter 101
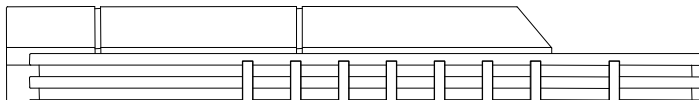
Figure 1. Front Panel Description

- **Power¡ green¡ ^**

  Indicates that there is power to the unit.

- **COM1-TxD (green)**

  Indicates the data output activity of COM1 port

- **COM1-RxD (green)**

  Indicates the data input activity of COM1 port

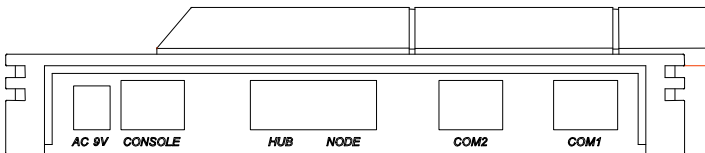- **COM2-TxD (green)**

  Indicates the data output activity of COM2 port

- **COM2-RxD (green)**

  Indicates the data input activity of COM2 port

- **LAN-Col (yellow)**

  Indicates the collision status of 10/100Mbps LAN port

- **LAN-Tx (green)**

  Indicates the data output activity of 10/100Mbps LAN port

- **LAN-Rx (green)**

  Indicates the data input activity of 10/100Mbps LAN port

Figure 2. Rear Panel Description

- **COM1**

  1st RS-232 port connecting with external modem or ISDN-TA

- **COM2**

10/100Mbps LAN port connecting with PC or Mac

- **Hub**

  10/100Mbps LAN port connecting with Hub port

- **Console**

  RS-232 console port operating at 9600-baud

- **AC 9V**

  External AC power adaptor input
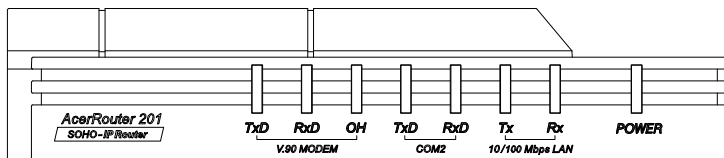
2.2.2 AcerRouter 201

Figure 3. Front Panel Description

- **Power¡ green¡ ^**

  Indicates that there is power to the unit.

- **V.90-TxD (green)**

  Indicates the data output activity of V.90 modem

- **V.90-RxD (green)**

  Indicates the data input activity of V.90 modem

- **V.90-OH (green)**

  Indicates the hook status of V.90 modem

- **COM2-TxD (green)**

  Indicates the data output activity of COM2 port

- **COM2-RxD (green)**

  Indicates the data input activity of COM2 port

- **LAN-Tx (green)**

  Indicates the data output activity of 10/100Mbps LAN port
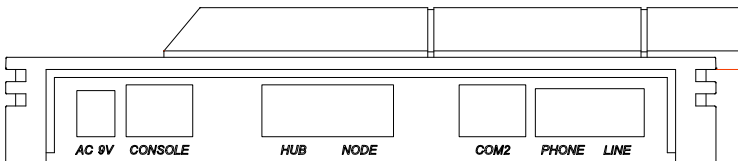
Figure 4. Rear Panel Description

- **LINE**

  V.90 modem RJ-11 for PSTN analog telephone line

- **PHONE**

  V.90 modem RJ-11 for external telephone set

- **COM2**

  2nd RS-232 port connecting with external modem or ISDN-TA

- **Node**

  10/100Mbps LAN port connecting with PC or Mac

- **Hub**

  10/100Mbps LAN port connecting with Hub port

- **Console**

  RS-232 console port operating at 9600-baud

- **AC 9V**

  External AC power adaptor input

2.3 System Requirements

- A 80486 or greater processor computer equipped with a 10Base-T or 10/100Base-T Ethernet card

- 16-bit, small-font monitor settings or above are suggested

- TCP/IP network protocol for each PC

- At least one computer for configuration

- UTP network cable with RJ-45 connector

- Microsoft Internet Explorer 4.0 or later, or Netscape Communicator 4.0 or later browser¡ For Web configuration¡ ^

- At least one modem or ISDN terminal adapter

2.4 ISP Requirements

Please collect the following information from your ISP before setup:

- ISP authentication type or script (if not PAP/CHAP)
- An ISP account which includes ISP dial-up username and password
- ISP dial-up phone number
- Your ISP's Domain Name Server IP address
- IP Address and Subnet mask (optional, for fixed IP users only.)

Chapter 3 Quick Installation

This Quick Installation is designed to help install the AcerRouter 101/201 to your network. The instructions included in this section assume you are setting up a new network.

There are 5 steps to set up the AcerRouter 101/201 product:

1. **Hardware Installation** To set up the hardware connection, power and other devices.

2. **Client-side Network Settings** To set up the client-side TCP/IP configuration in order to configure and access the AcerRouter 101/201.

3. **AcerRouter 101/201 Setting** To configure the AcerRouter 101/201 product using Java compatible web browser or Telnet program.

4. **Test** Use browser to access external web site to check if all settings are correct.

5. **Setting up other clients** To set up all other client stations in the same LAN.

3.1 Hardware Installation

The followings are instructions for setting up the AcerRouter 101/201 . Refer to the illustration below and follow the simple steps to quickly install your AcerRouter 101/201.
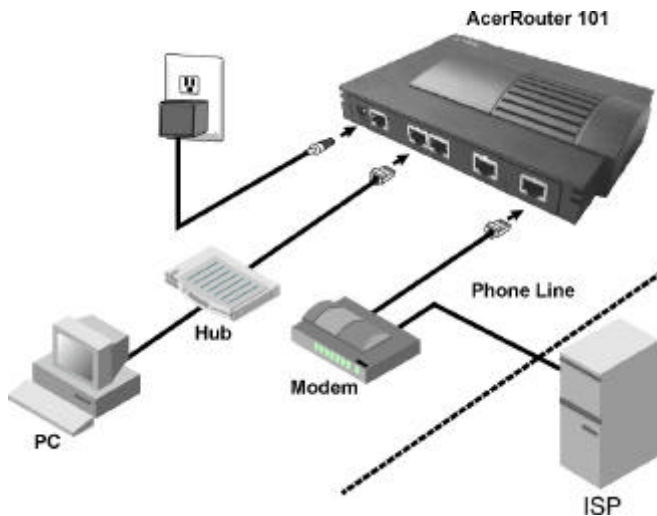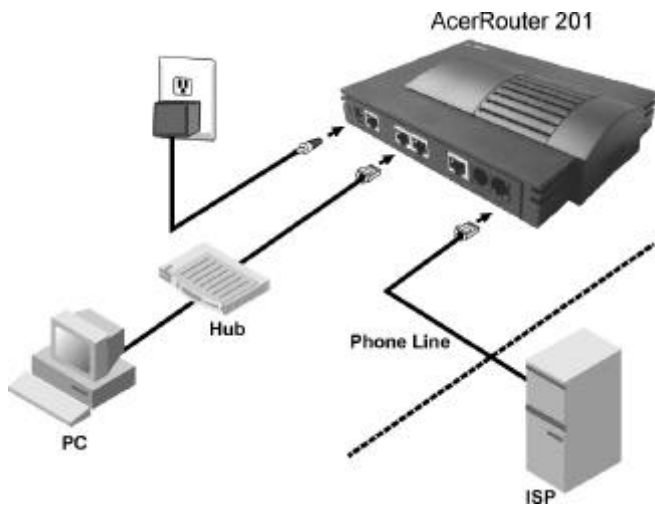
Figure 5. AcerRouter 101 Hardware Installation

1. Connect one end of the RS-232 DB25-to-RJ45 cable¡ included in the package¡ ^ to the modem/ISDN TA and the other end to the RJ-45 serial port labeled **COM 1** on the back of the AcerRouter 101. Go to Step 2. For the AcerRouter 201, connect one end of RJ-11 cable to wall RJ-11 outlet and the other end to the RJ-11 port labeled "Line" on the back of the AcerRouter 201. Go to step 4.


Note:

The AcerRouter 101/201 has only one standard 10/100Base-T port. But there are two connectors – one labeled "Hub" and one labeled "Node" – that users can choose to use.   Only one connector should be used at one time.

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2. Connect phone line to the modem/ISDN TA.

3. Connect power adapter to the modem/ISDN TA and turn on the power. We suggest that one single modem be connected and configured first, and if an additional modem is required, repeat the previous procedure for setting up the first modem/ISDN TA.

4. Use standard "straight" twist-pair Ethernet cables to connect your current hub/switch to the "Hub" port or personal computer to the "Node" port.

5. Plug the AcerRouter 101/201 power adapter outlet, then plug the power supply output cable into the power connector on the rear of the unit. The Power LED should be lit immediately.
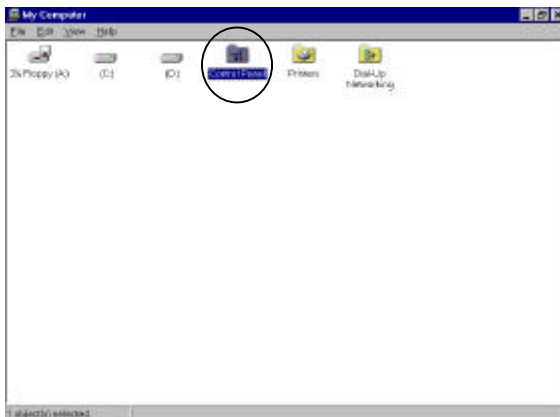
3.2 Client-side Network Settings

After installing the AcerRouter 101/201 hardware, please follow the procedures below to configure the units:
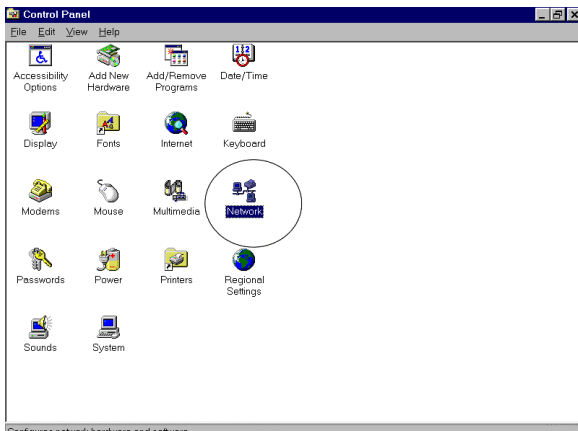
1. Choose a computer in LAN to configure the AcerRouter 101/201. On Windows 95 desktop, double click "**My Computer**".
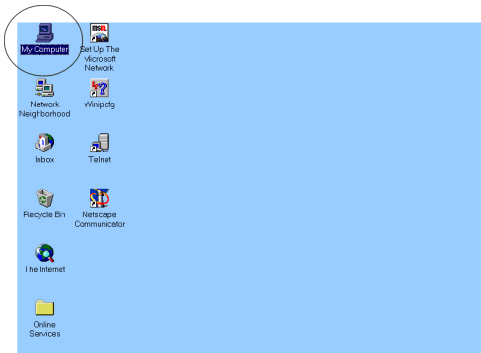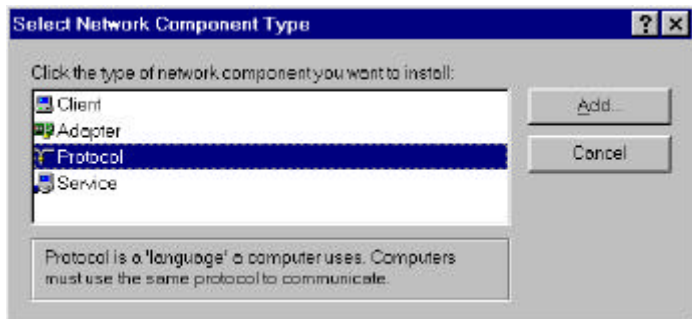
- 2. Double click "**Control Panel**".

3. Double click "**Network**". This window appears the related information about the network interface card which you installed. Please check out if "**TCP/IP**" component is installed or not. If not, click "**Add**", otherwise, go to Step 6.
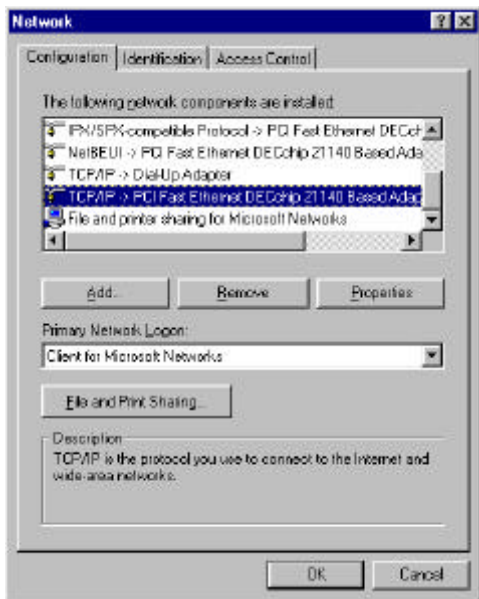
4. Double click "**Protocol**".

5. On the left side of the window, choose "**Microsoft**", and then select "**TCP/IP**" component on the right side. After TCP/IP component is completely installed, click "**OK**".
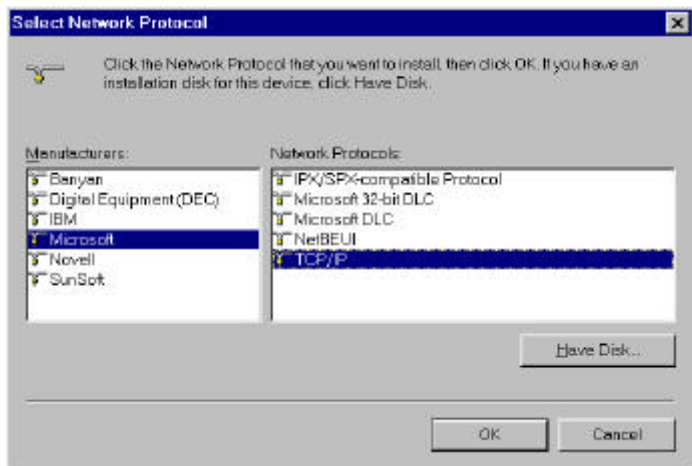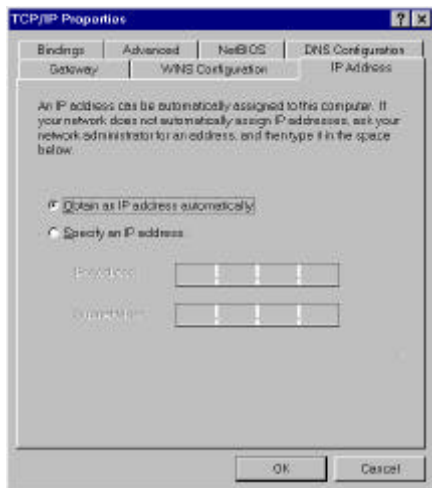
6. Double click "TCP/IP" component.

7. The TCP/IP Properties window appears. If there is no DHCP server in the same Network, click "IP Address" and select "Obtain IP address automatically" item. Meantime, ignore the Gateway and DNS settings because the system will configure them automatically.

Note¡ **I**f there is any other DHCP server in the Network, please select "**Specify an IP address**" and use the default value "**192.168.1.*****"¡ **I**** is between 2 and 252¡ **A**set Subnet Mask "**255.255.255.0**", Gateway IP "**192.168.1.1**" and DNS for configuration.

After finishing TCP/IP set up, reboot the computer and run the browser to configure the AcerRouter 101/201. Afterwards, set up other PC in the LAN according to above procedures.

3.3 AcerRouter 101/201 settings

1. Start your web browser (Netscape Navigator 4.0 or Microsoft Explorer4.0 later or other Java compatible browser) and type **192.168.1.1** in the address and press "**ENTER**" key on your keyboard. The "Username and Password Required" window will pop up. Leave the User Name blank and fill in the Password "**admin**". Then click "**OK**" to enter Web Management.
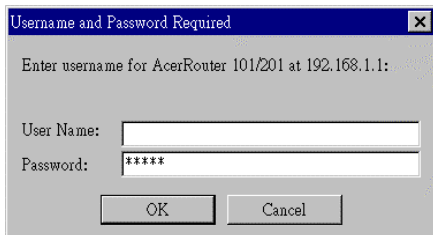
Note: In Netscape Communicator 4.0, after popping up for a while, the Quick Setup window will be hidden behind the Netscape main window. Minimize the Netscape main window if wish to see the Web Management page.
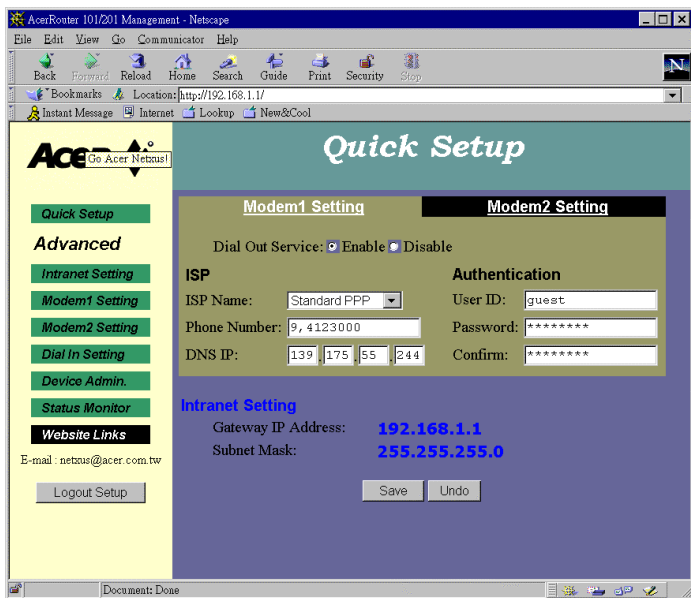
2. Select "**Enable**"(default value) to key in the required information for Modem 1.

   Note: Modem2 Settings are similar to the Modem1's. Repeat step 3 if wish to install Modem2.

3. For most ISP, it's ok to select PPP. Select the applicable ISP Name from the drop-down box.

4. For most PPP dial-up account, below 4 parameters are needed. Fill the **ISP phone number, DNS IP, User ID and Password** respectively. The information should be provided by ISP as soon as you applied the account.

5. In Intranet Setting, enter the default value **192.168.1.1** and Subnet Mask **255.255.255.0**, or select one applicable from the drop-down box.

6. Check all the values and click "**Save**" to save the data and logout setup.

3.4 Test

After finishing the AcerRouter 101/201 setup, run another browser and key in any external web site address like www.yahoo.com to see if the modem dials properly. Once the Link LED is on, the Internet connection is successfully established. Otherwise, refer the Troubleshooting section for further instructions.

3.5 Setting Up Other Client Stations

Follow the 3.2 Client-Side Network Settings to set up other client stations. If you use fixed IP configuration, be careful not to assign the same IP to different computers.

Chapter 4 Advanced Configuration

After the client computer is well configured, you can use any Java supported browser or Telnet program to configure the AcerRouter 101/201 series.

4.1 Configuring by Web Management

The Main Menu includes Quick Setup is for quick installation as described in Chapter 3. The Advanced Menu includes Intranet Setting, Modem1 Setting, Modem2 Setting, Dial-In Setting, Device Admin, and Status Monitor.

4.1.1 Intranet Setting

Click "**Intranet Setting**" in the Advanced menu as below.

IP Settings

Check the IP Address and Subnet Mask for the AcerRouter 101/201. If you wish to use the AcerRouter's DHCP server function, enable Dynamic IP address and the number of users. Remember if you have dial-in users, the last two IP addresses are automatically left for them to avoid overlapping with the dial-out users' IP Addresses.
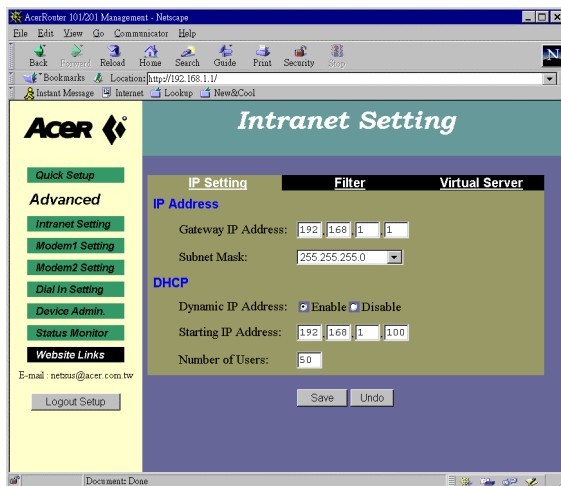
Filter

In the filter menu, IP Address Filter prevents some interior members to browse the Internet via AcerRouter 101/201. You may add up to five sets of IP address on the Filtered Private IP Address field.

Service Filter allows the prevention of all users from accessing any restricted service on the Internet. You may add up to five services on the Filtered Private Ports field.


Virtual Server

Virtual server is setting up public services group interior so as for allowing Internet users to access. You must have a fixed IP to utilize this function. For example, If you set "80(WWW HTTP) in Service field and 192.168.1.2 in IP Address field, then all WWW request from outside user will be transferred to 192.168.1.2. The Gateway of servers must be set on 192.168.1.1

You may use this function to establish web server or FTP server via AcerRouter
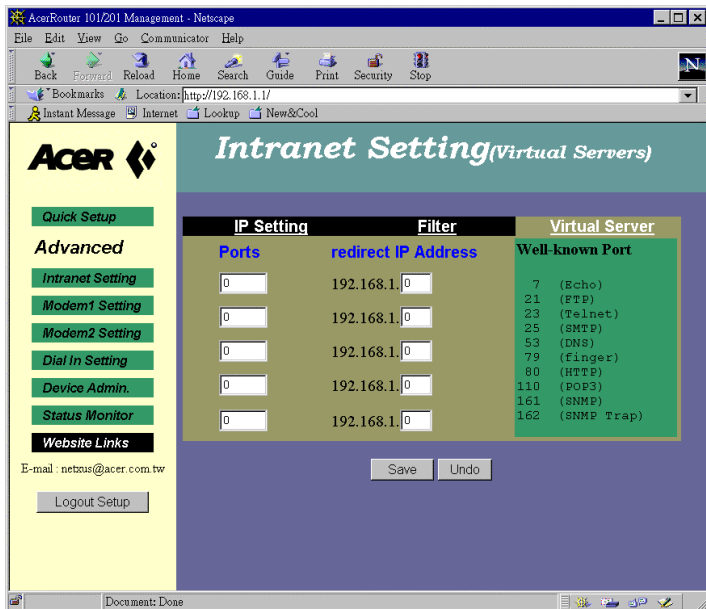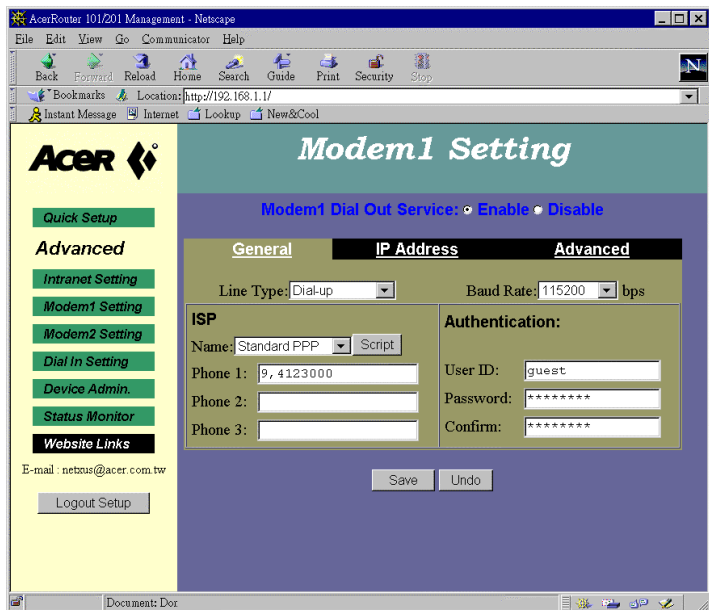
4.1.2 Modem1 Setting

Firstly, **enable** Modem1 Dial-Out Service before setup.

General

Select the Line Type and the Baud Rate from the drop-down box. It is suggested that the Baud Rate should be about four times of maximal speed of your modem. Enter the necessary ISP and Authentication information and click on the "save".

Note:

If your ISP account needs Login Script, click the "**Script**" button and the screen below will pop up. Enter the necessary script file to connect to the ISP. The following is a sample script file with the proper syntax and the meaning of the command.

~~"ogin:""Neil"~~"word:""a5831010"

Command	Description
~~	Wait for two seconds before executing the next script line. The number of "~" stands for the time of seconds.
"ogin:"	The double quotes stands for sending/receiving the message. The '**ogin:**' is part of '**login:**' to avoid mistakes caused by lowercase/uppercase of the beginning word "L". As the example, "ogin:" means to verify that the ISP is sending login message.
"Neil"	After receiving the login requirement from ISP, you can enter your login name 'Neil' within double quotes to send the message. Please note that the login name is provided by ISP.
~~"word"	'Word' is part of 'password'. After sending out the login user name, you may wait two seconds for the ISP to ask your password.
"a5831010"	After receiving the inquiry from your ISP, please enter your password within double quotes to send the message. Please note that the password is provided by the ISP.
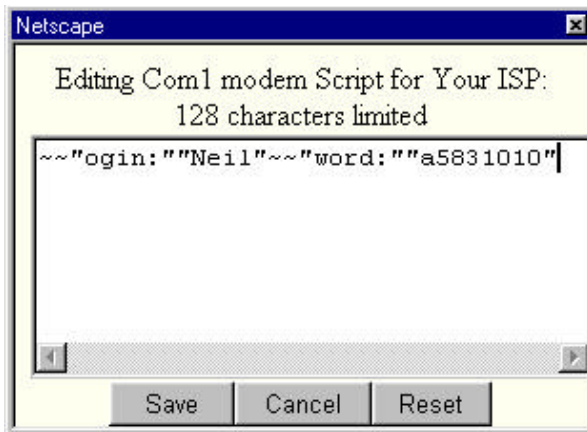
IP Address

This page indicates if you would like to get a dynamic IP or a fixed IP from ISP. If you wish to have a fixed IP, please also enter the IP address and the DNS IP.
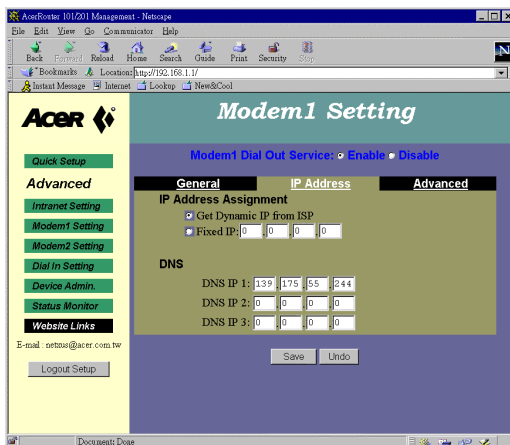
Advanced

This page is to verify the configuration of your modem. Please refer to your modem's user's manual to fill in the required information.

traffic exceeds the setup threshold.

Note: About ISDN TA Setup

Unlike most modems, ISDN initial strings vary between different ISDN TAs and there is no "Standard ISDN TA" initial string. If your ISDN TA is not listed in the modem selection list, you must find out what your ISDN TA initial string is. Your ISDN TA's initial string should be listed in your ISDN TA user's manual. There are probably many initial strings listed for your ISDN TA. The one you are looking for is Asyn-to-Sync PPP (Asynchronous to Synchronous PPP). You can enter this initial string if you would like to use only one channel of your ISDN TA. If you would like to bundle both channels of your ISDN TA together, you need to use a different initial string called Multilink-PPP.

You should also verify that your ISDN TA supports the Dial-up string ATDT. Most ISDN TAs will support ATDT and usually the rest will support ATD or ATDI.

Please also note that to bundle the two channels of your ISDN TA together, you must enter the two phone numbers in the Telephone Number.

4.1.3 Modem2 Setting

Settings of Modem2 are similar to Modem1. Please refer to Modem1 Settings for setting Modem2.

4.1.4 Dial In Setting

Dial-in User Account

To configure computers for remote dial-in access, please select "Enable" radio button to initiate Modem2 Dial-in Service. Enter the ID and Password of dial-in users. The default ID and Password setting for User1 is "guest" and "password" and up to three users are allowed to use dial-in access.

Callback

Dial-in callback function is provided for AcerRouter 101/201. Set the call back time and the AcerRouter 101/201 will automatically call back after receiving dial-in inquiries to make sure that the user is on the dial-in list. Note that the phone charge will be
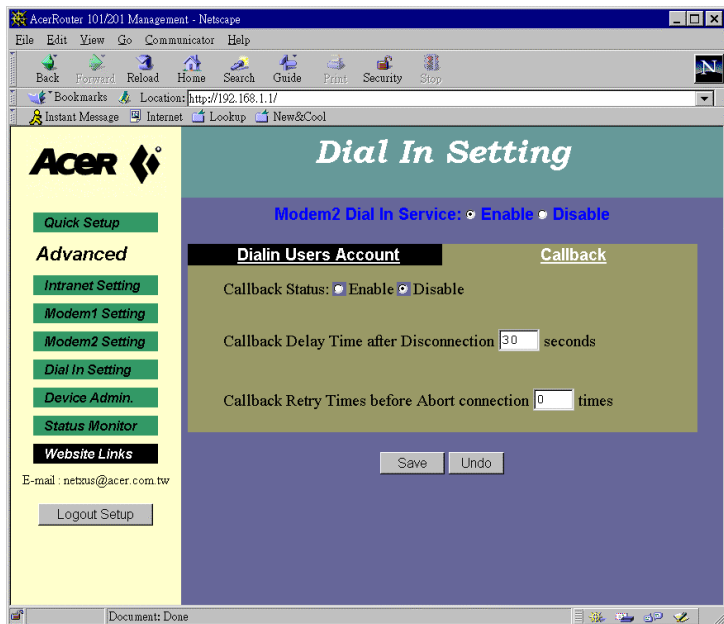
transferred to you if you enable the callback function.

4.1.5 Device Admin Setting

In the Device Admin Setting, you may change the password or reset the device. Select "Yes" to the Factory defaults function will reset all the settings previously configured and return to the default configurations.

4.1.6 Status Monitor

This page provides working information of the working status of the AcerRouter 101/201. You can click on the DHCP Clients Table button to check on the DHCP IP table.

The DHCP Active IP Table lists all clients that get IP from the AcerRouter 101/201. To see the latest IP distribution information, click the Refresh button on the upper left corner to update the information.

4.2 Configuring by Telnet

1. At MS-DOS Prompt, execute "telnet 192.168.1.1" command to enter AcerRouter 101/201 Telnet Configuration Program. ¡ Use respective Telnet program in other operating systems. ¡ ^
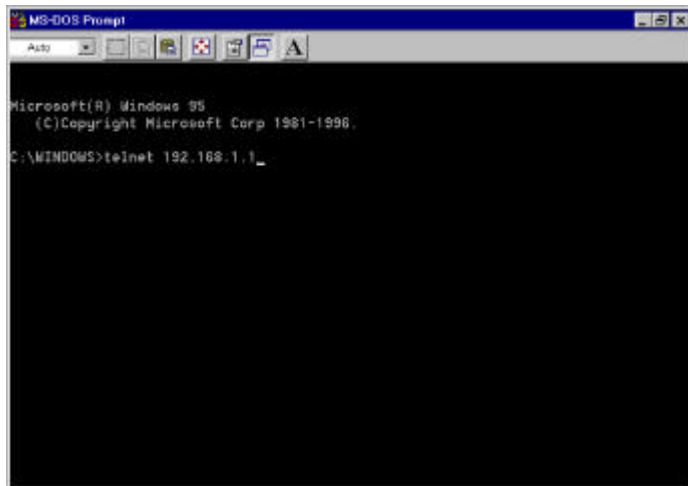
2. To enter the AcerRouter 101/201 Telnet Configuration Program, key in the default supervisor password "**admin**".
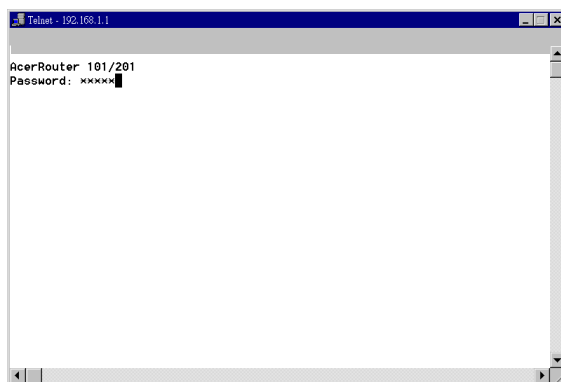
3. After the password certified OK, the main menu of the AcerRouter 101/201 Telnet commands appears.

The structure of commands is similar to web management. Please follow the previous explanation to configure the AcerRouter 101/201.

4.3 Configuring by Terminal Program via Console Cable

The console configuration can be used when the user cannot access the AcerRouter 101/201 from network.

This section explains how to configure and use a Terminal program. The terminal communications program provided with Windows 95 is called "HyperTerminal". Please configure as instructed below:

1. Power off the AcerRouter 101/201. Connect the AcerRouter 101/201's serial port directly to your PC's serial port using the enclosed serial cable.

2. Configure your terminal emulation program. Find the HyperTerminal program as below. Click to enter.
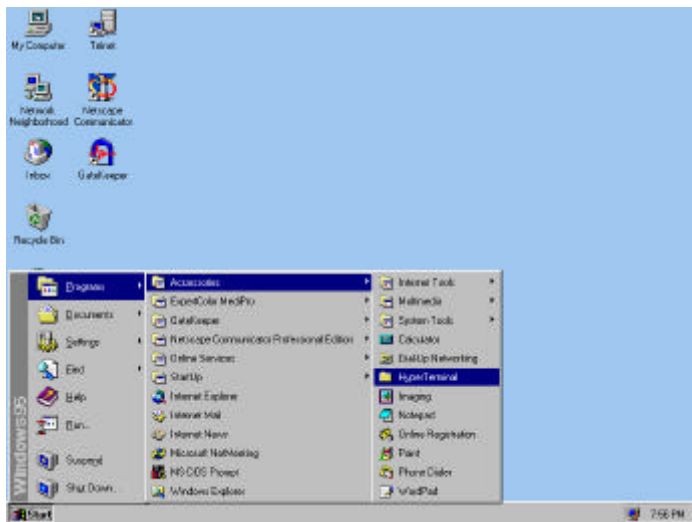
3. Check if the "Null   " is built-in. If not, double click Hypertrm.exe"
   build a new one.
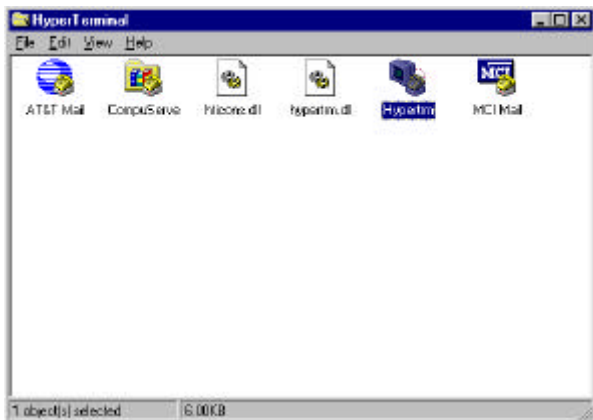
4. A New Connection"   "**Null Modem**" in the Name field
   "**OK**".
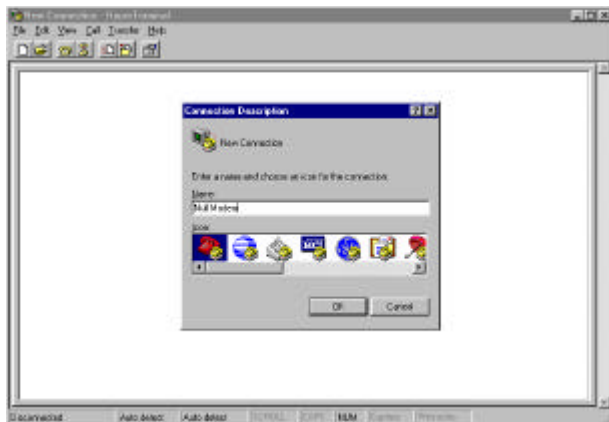
5. The "Phone Number" window appears. Make sure that the "Connect using" box shows the one you have connected the serial cable to.

6. Click the "OK" button, and you should see a screen as below. Change the settings as the screen shows.
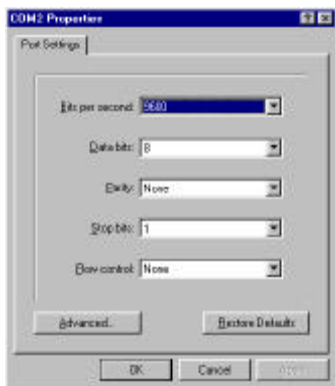
7. Click "OK" when finished.

8. Power on the AcerRouter 101/201 by plugging in the power adapter. The built-in

explanation to configure the AcerRouter 101/201.

Chapter 5 Troubleshooting

This chapter provides the solutions to problems occuring during installation and operation of the AcerRouter 101/201. Please check the following to solve problems.

Problem & Symptom	Possible cause & Solution
Hardware-	
The LAN Tx/Rx LED is off	Check all the connections and make sure that they are well connected.
	Make sure that your hub/switch is correctly connected to "Hub", or your PC to "Node". "Hub" and "Node" can not be used at the same time.
	Make sure that your Ethernet card is installed properly.
	Make sure all the physical connections are well-connected and the Modem is powered on.
	Make sure a working phone line is connected to the Modem.
Modem is not able to dial out	The number may need to be added with prefix such as "0," to get an outside line. The comma stands for the connection waiting time.
I Can't browse to the IP Gateway	Check the TCP/IP setup on your PC.
	Run "winipcfg" under Windows 95/98 prompt DOS or
	run "Ipconfig" under Windows NT prompt DOS. The PC should have an IP address of 192.168.1.x (where "x" is from 1 to 254.).
	If you use fixed IP, you have to set client station IP address in the range of 192.168.1.2 ~ 192.168.1.252 except 192.168.1.100 ~ 192.168.1.149, default gateway as 192.168.1.1 and DNS IP as your ISP's DNS IP.
	If the computer has previously used Dial-up networking for Internet access, you have to make the following changes:
	● Click *Start, Setting* and *Control Panels*
	● Double click the *Internet* icon and then click *Connection* tab

AcerRouter 101/201 and Modem

Modem can dial out, but won't connect to the ISP	Check the initialization string set up. Be sure to power off and power on the Modem after changing the string.

Basically default AT command is "AT&F" and is available for most modems, but some modems had its own initial AT command due to changeable serial port rate and you can find this information on their user's manual. (For Example, US Robotics modem initial string is "AT&F1B1")

For no dial tone telephone system, your initial AT command should add "X1" as "AT&FX1"

Test the Modem in Diagnostics window of Telnet.

You can also use *Ping* command in MS-DOS mode to verify the network connection:

- *Ping* 127.0.0.1 to see if the TCP/IP stack is properly configured.

- *Ping* gateway IP (Default: 192.168.1.1) to check if the internal link of network works.

- *Ping* DNS IP and observe whether the modem will dial or not, to check the external link and modem connection.

- *Ping* a Internet domain name (Example: www.yahoo.com) to see if DNS works.

When dialing into the AcerRouter 101/201, the Modem does not seem to connect.	Make sure that you are on the AcerRouter 101/201 Dial-in User list.

Modem 2 cannot be enabled.

Check the rear panel of the device, the MODEM 2/CONFIG Switch must be set on the MODEM 2.

If the Bandwidth-on-demand is set on the bandwidth allocation, lower down the percentage of MODEM1 in the rule dialogue¡ the default setting is at 50%¡^

Miscellaneous I cannot get IP from AcerRouter 101/201. I have another DHCP server on my LAN	If there are no Internet access for your network environment, we suggest that you disable AcerRouter 101/201 DHCP server on the Intranet page. If your LAN can access the Internet in default, we suggest that you disable your pre-existing DHCP server services or separates them into two different segments.

Appendix A Specifications

	101	201
Standards Compliance		
IEEE 802.3 10BASE-T	√	√
IEEE 802.3u 100BASE-TX	√	√
PPP, TCP/IP, DHCP, DNS	√	√
CHAP/PAP, SNMP	√	√
WAN Interface		
RS-232/Modem RJ-45 connector	2	1
V.90 56kbps RJ-11 connector	0	1
RS-232/Console RJ-45 connector	1	1
LAN Interface		
10BASE-T/100BASE TX RJ-45 port	1	1
Support Dial-in Client		
Windows Dial-up Network	√	√
Trumpet	√	√
PPP compatible application	√	√
LED Display		
Power	√	√
Link/Activity for WAN/LAN ports	√	√
Collision for LAN port	√	×
Environments		
Operation Temperature	0~50℃ (32~122°F)	
Storage Temperature	-20~70℃ (-4~158°F)	
Humidity	0~90%	

Dimension		
LxWxH (mm)	181 x 125 x 38.26	181 x 125 x
LxWxH (in.)	7.13 x 4.92 x 1.51	7.13 x 4.92 x
Power	AC9V, 1A	
Management		
Web management	√	√
Telnet from LAN computer	√	√
Terminal control via RS-232 cable	√	√

DHCP

DHCP is a protocol for automatic IP configuration. Client side computer can get one IP from DHCP server automatically. Using DHCP can save the effort of setting IP for every LAN computers.

Dial-in

Dial in is the function for remote user to access office LAN by Modem/ISDN TA connection. Just like you dial up to ISP, Gateway Hub can act as a small ISP that telecommuter and travelling employee can access LAN using standard dial up program.

Dial-up Access

Refers to connecting a device to a network via a modem and a public telephone network. Dial-up access is really just like a phone connection, except that the parties at the two ends are computer devices rather than people. Because dial-up access uses normal telephone lines, the quality of the connection is not always good and data rates are limited, but new technologies such as ISDN are providing faster rates.

An alternative way to connect two computers is through a leased line, which is a permanent connection between two devices. Leased lines provide faster throughput and better quality connections, but they are also more expensive.

Domain Name

A name that identifies one or more IP addresses. For example, the domain name microsoft.com represents about a doze IP addresses. Domain names are used in URLs to identify particular Web pages. For example, in the URL http://www.pcwebopedia.com/index.html, the domain name is pcwebopedia.com.

IEEE

Abbreviation of Institute of Electrical and Electronics Engineers, pronounced I-triple-E. Founded in 1884, the IEEE is an organization composed of engineers, scientists, and students. The IEEE is best known for developing standards for the computer and electronics industry. In particular, the IEEE 802 standards for local-area networks are widely followed.

Internet

A global network connecting millions computers. As of 1998, the Internet has more

Intranet

A network based on TCP/IP protocols (an internet) belonging to an organization, usually a corporation, accessible only by the organization's members, employees, or others with authorization.

IP Address

An identifier for a computer or device on a TCP/IP network. Networks using the TCP/IP protocol route messages based on the IP address of the destination. The format of an IP address is a 32-bit numeric address written as four numbers separated by periods. Each number can be zero to 255. For example, 1.160.10.240 could be an IP address.

ISDN

Abbreviation of integrated services digital network, an international communications standard for sending voice, video, and data over digital telephone lines. ISDN requires special metal wires and supports data transfer rates of 64 Kbps (64,000 bits per second).

ISP

Short for Internet Service Provider, a company that provides access to the Internet. For a monthly fee, the service provider gives you a software package, username, password and access phone number. Equipped with a modem, you can then log on to the Internet and browse the World Wide Web and USENET, and send and receive e-mail.

Local Area Network (LAN)

A computer network that spans a relatively small area. Most LANs are confined to a single building or group of buildings. However, one LAN can be connected to other LANs over any distance via telephone lines and radio waves. A system of LANs connected in this way is called a wide-area network (WAN)

MAC Address

Short for Media Access Control address, a hardware address that uniquely identifies each node of a network. In IEEE 802 networks, the Data Link Control (DLC) layer of the OSI Reference Model is divided into two sublayers: the Logical Link Control (LLC) layer and the Media Access Control (MAC) layer. The MAC layer interfaces directly with the network media. Consequently, each different type of network media requires a different MAC layer.

over standard telephone lines. A PPP account is a dial-up account used to connect to the Internet. It is a dial-up account actually calls another computer to gain Internet access.

PAP/CHAP ISP

PAP stands for Password authentication protocol. CHAP means Challenge handshake authentication protocol. Most ISP use either one for user identification. If your ISP doesn' t support these two protocols, contact ISP for authentication script. You have to key in script to IP Gateway.

TCP/IP

Acronym for Transmission Control Protocol/Internet Protocol, the suite of communications protocols used to connect hosts on the Internet. TCP/IP uses several protocols, the two main ones being TCP and IP.

Telnet

A terminal emulation program for TCP/IP networks such as the Internet. The Telnet program runs on your computer and connects your PC to a server on the network. You can then enter commands through the Telnet program and they will be executed as if you were entering them directly on the server console. This enables you to control the server and communicate with other servers on the network. To start a Telnet session, you must log in to a server by entering a valid username and password.

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Acer Netxus Incorporated (ANI) warrants its product to be free from defects in materials and workmanship, under normal use and service, for the following lengths of time form the date of purchase from ANI or its Authorized Resellers.

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